

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
RADWIN, Ltd.)	ET Docket No. 20-128
)	
Request for waiver of Section 15.407(a) of the)	
rules for Unlicensed National Information)	
Infrastructure devices in the 5.15-5.25 GHz and)	
5.725-5.850 GHz bands)	

ORDER

Adopted: September 15, 2020

Released: September 15, 2020

By the Acting Chief, Office of Engineering and Technology:

I. INTRODUCTION

1. By this Order, we grant, in part, a limited extension of RADWIN, Ltd.'s (RADWIN) existing waiver of Section 15.407(a) of the Commission's rules for Unlicensed National Information Infrastructure (U-NII) devices in the 5.15-5.25 GHz and 5.725-5.850 GHz bands.¹ This limited extension permits the specific locations currently operating under RADWIN's waiver, which are listed in the Appendix, to continue operating until the latter of an order ruling upon RADWIN's request for a more expansive extension, or 60 days from now.

II. BACKGROUND

2. On July 16, 2020, the Commission granted, for 60 days, a waiver of Section 15.407(a) of the Commission's rules to RADWIN to allow its JET point-to-multipoint, beamforming fixed wireless base stations to operate in the 5.15-5.25 GHz and 5.725-5.850 GHz bands at power levels that exceed the limit for point-to-multipoint systems.² We granted this waiver so that wireless internet service providers could deliver benefits to consumers that will allow them to stay connected and access essential services during the ongoing challenge of the COVID-19 pandemic. The higher power permitted under the waiver provides improved system performance and increased capacity to enable service to more customers simultaneously. This improved performance and capacity particularly benefits customers in remote areas by providing better access to important services such as telehealth during the current pandemic. We also concluded that, with appropriate operational and technical restrictions to prevent harmful interference to authorized services, the waiver to RADWIN does not undermine the purpose of the rules, i.e., to prevent harmful interference to authorized services.³

3. Sections 15.407(a)(1)(i) and 15.407(a)(3) of the Commission's rules permit U-NII devices to operate in the 5.15-5.25 GHz and 5.725-5.850 GHz bands with a maximum conducted power

¹ Letter from Adi Nativ, RADWIN, to Ronald T. Repasi, Acting Chief, Office of Engineering and Technology, FCC, ET Docket No. 20-128 (filed Sept. 10, 2020) (RADWIN Waiver Extension Request).

² *Request for Waiver of Section 15.407(a) of the Rules for Unlicensed National Information Infrastructure Devices in the 5.15-5.25 GHz and 5.725-5.850 GHz Bands*, ET Docket No. 20-128, Order, 35 FCC Rcd 7089 (July 16, 2020) (RADWIN Waiver Order).

³ *Id.* at paras. 7-8.

output of one watt (30 dBm) and an antenna gain of up to 6 dBi, i.e., an EIRP limit of 36 dBm.⁴ If the maximum directional gain of the antenna exceeds 6 dBi, the conducted power output must be reduced by the amount in dB that the antenna gain exceeds 6 dBi, which ensures that the EIRP does not exceed 36 dBm.⁵ EIRP levels greater than 36 dBm are permitted for fixed point-to-point systems, but not for point-to-multipoint systems.⁶ The Commission's waiver to RADWIN permits point-to-multipoint systems that use multiple sequential beams to operate in the 5.15-5.25 GHz with up to 42 dBm EIRP, i.e., 6 dB above the limit specified in the rules and in the 5.725-5.850 GHz band with up to 48 dBm EIRP, i.e., 12 dB above the limit specified in the rules. The Commission also put additional conditions on the waiver to ensure that harmful interference is not caused to authorized stations, including radiolocation stations operated by the federal government. These conditions include requirements to meet the undesirable emission limits in Section 15.407(b), a geographic restriction which prevents operation under the waiver conditions in certain counties, a requirement to maintain a database of the geographic coordinates where equipment is operating at higher power, and a requirement to coordinate with the National Science Foundation for operation at certain locations.⁷ The waiver was also limited to 60 days, consistent with RADWIN's request and to limit the potential impact on authorized services in the same and adjacent bands.⁸ Finally, the waiver requires all devices operating pursuant to the waiver to have their power reduced to levels permitted by the rules at the end of the waiver period and for RADWIN to provide a list, within 20 days of the waiver expiration, of its customers that have failed to update their devices to the pre-waiver settings.⁹ The current waiver expires on Monday, September 14, 2020.

4. On Thursday, September 10, 2020, RADWIN requested that the Commission extend its waiver for an additional 180 days.¹⁰ Additionally, RADWIN requested that the Commission provide emergency authority to allow those entities that are currently utilizing RADWIN's waiver to continue operating under the parameters of that waiver while the Commission reviews its request for an extension and completes the necessary coordination with the National Telecommunications and Information Administration (NTIA).¹¹ Three wireless Internet service providers have utilized RADWIN's waiver request to provide high-speed broadband service to consumers from 28 base stations.¹²

III. DISCUSSION

5. We are authorized to grant a waiver under Section 1.3 of the Commission's rules if the petitioner demonstrates good cause for such action.¹³ Good cause, in turn, may be found and a waiver granted "where particular facts would make strict compliance inconsistent with the public interest."¹⁴ To

⁴ 47 CFR § 15.407(a)(1)(i), (a)(3).

⁵ *Id.*

⁶ *Id.* In the 5.15-5.25 GHz band, fixed point-to-point systems may use an antenna with a gain of up to 23 dBi and up to 30 dBm transmitter power, i.e., an EIRP limit of 53 dBm. In the 5.725-5.850 GHz band, fixed point-to-point systems may operate with up to 30 dBm transmitter power and no limit on antenna gain.

⁷ RADWIN Waiver Order, paras. 10-11.

⁸ RADWIN, Ltd. Emergency Waiver Request, ET Docket No. 20-128, at 3 (filed May 1, 2020); RADWIN Waiver Order, para. 8.

⁹ RADWIN Waiver Order, para. 10.

¹⁰ RADWIN Waiver Extension Request, at 1.

¹¹ *Id.*

¹² *Id.* at 1-2. The locations of these base stations are listed in the Appendix.

¹³ 47 CFR § 1.3. See also *ICO Global Communications (Holdings) Limited v. FCC*, 428 F.3d 264 (D.C. Cir. 2005); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

make this public interest determination, the waiver cannot undermine the purposes of the rule, and there must be a stronger public interest benefit in granting the waiver than in applying the rule.¹⁵

6. We find that granting, in part, a limited extension of RADWIN's waiver is warranted so that wireless internet service providers that modified their systems consistent with the flexibility provided by the waiver to better serve customers during the ongoing challenge of the COVID-19 pandemic can continue to do so. Higher power has provided improved system performance and increased capacity to enable service to more customers simultaneously. This improved performance and capacity particularly benefits customers in remote areas by providing better access to important services such as telehealth during the current pandemic. As evidence of this benefit, RADWIN notes that its customers have achieved peak throughput levels several times greater than prior to the waiver.¹⁶

7. We limit this extension to only the existing sites operating with the increased flexibility afforded by the previously granted waiver while the Commission considers RADWIN's larger request to extend the waiver for 180 days. That request, if granted, would permit more stations to operate at the higher power levels and for a significantly longer period than the current waiver. Thus, this limited extension only authorizes the 28 existing base stations operating at power levels that exceed those specified in 15.407(a) to operate at those higher levels. We find this limited action is reasonable given that it affects only a relatively few locations and the base station operators have complied with all waiver conditions and no instances of harmful interference have occurred. These operators must continue to comply with all conditions of the currently granted waiver. At the time the Commission disposes of the current RADWIN extension request, these systems will either be permitted to continue operating until that waiver expires or will be required to return to pre-waiver operating parameters if the Commission denies the request.

8. Finally, in granting this limited extension to three operators and 28 base stations, we do not believe there will be any adverse impact on Globalstar operations or adjacent band Intelligent Transportation Systems or AeroMACS. Globalstar, 5G Automotive Association, NCTA and WiMax Forum supported the original waiver request so long as it was limited to the requested 60-day time period.¹⁷ Because the Commission has not yet adopted final rules in its review of Intelligent Transportation Systems in the 5.9 GHz band or adopted rules authorizing AeroMACS, this limited extension will not adversely impact those systems. Also, because this action only affects 28 base stations, we do not believe continued operation will harm Globalstar's operations as there have not been any instances of harmful interference under the current waiver.

9. Accordingly, pursuant to the delegated authority in Sections 0.31 and 0.241 of the Commission's rules, we extend the waiver of the requirements of Sections 15.407(a) of our rules to permit the existing 28 sites listed in the Appendix to continue operating the RADWIN JET point-to-multipoint system¹⁸ at power levels that exceed the limits in that section. This waiver is subject to the same conditions as the existing waiver to RADWIN granted in document DA 20-750.¹⁹ These stations

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¹⁴ *Northeast Cellular*, 897 F.2d at 1166; *see also ICO Global Communications*, 428 F.3d at 269 (quoting *Northeast Cellular*); *WAIT Radio*, 418 F.2d at 1157-59.

¹⁵ *See, e.g., WAIT Radio*, 418 F.2d at 1157 (stating that even though the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule); *Northeast Cellular*, 897 F.2d at 1166 (stating that in granting a waiver, an agency must explain why deviation from the general rule better serves the public interest than would strict adherence to the rule).

¹⁶ RADWIN Waiver Extension Request at 2.

¹⁷ Globalstar Comments at 3, 5G Automotive Association Comments at 1-2, NCTA Comments at 2, WiMax Forum Comments at 4.

¹⁸ FCC ID: Q3K-BFJET5X.

may continue operating until the latter of an Order ruling upon RADWIN's request for a more expansive extension, or 60 days from now.

IV. ORDERING CLAUSES

10. Accordingly, pursuant to authority delegated in Sections 0.31 and 0.241 of the Commission's rules, 47 CFR §§ 0.31, 0.241, and Section 1.3 of the Commission's rules, 47 CFR § 1.3, IT IS ORDERED that the Request for Waiver Extension filed by RADWIN, Ltd. on September 10, 2020 IS GRANTED for a period that will end upon the latter of an Order ruling upon RADWIN's request for a more expansive extension, or 60 days from now, consistent with the terms of this Order. This action is taken pursuant to Sections 4(i), 302, 303(e), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 302, 303(e), and 303(r). This action is effective upon release of this Order.

FEDERAL COMMUNICATIONS COMMISSION

Ronald T. Repasi
Acting Chief, Office of Engineering and Technology

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¹⁹ RADWIN's original waiver was for 60 days, but this limited extension is tied to a separate timeframe and not necessarily for another 60 days. All other conditions from the original waiver shall continue to apply.

APPENDIX

**Locations where higher power operation of RADWIN equipment
is allowed under this limited waiver extension**

46.469	-116.689
46.516	-116.55
46.513	-116.721
46.506	-116.556
46.51	-116.495
46.524	-116.606
39.741	-105.041
39.784	-104.865
30.076	-98.411
39.761	-104.892
39.761	-104.892
39.778	-104.946
39.737	-104.968
39.778	-104.946
46.469	-116.689
30.127	-98.436
30.127	-98.436
30.127	-98.436
30.076	-98.411
30.076	-98.411
30.076	-98.411
39.741	-105.041
39.761	-104.892
39.748	-104.98
39.761	-104.892
30.359	-98.25
46.513	-116.721
30.207	-98.479

